TYBA INTERNATIONAL BANKING AND FINANCE
MODULE 1 ; FUNDAMENTALS OF INTERNATIONAL FINANCE

Meaning and scope of international finance

Meaning of International Finance

International finance is a branch of economics that studies **monetary interactions among countries**, focusing on the **flow of capital, investments, trade, and exchange rates** across borders.
It deals with how nations, multinational corporations, financial institutions, and international organizations manage financial transactions in a globalized world.

It examines questions like:

- How do countries settle trade payments?
- How are exchange rates determined?
- What role do international institutions (IMF, World Bank, WTO) play?
- How do capital flows and investments affect economic stability?

Thus, international finance integrates **theory, policy, and practice** to understand global economic relations

Scope of International Finance

1. **Balance of Payments (BOP):** Studies the systematic record of all economic transactions between residents of a country and the rest of the world. Helps analyze trade surplus/deficit and external debt position.
2. **Foreign Exchange Market and Exchange Rates:** Covers determination of exchange rates under gold standard, fixed, and floating systems. Examines currency convertibility, arbitrage, speculation, and hedging.
3. **International Monetary System:** Evolution from Gold Standard to Bretton Woods System to Present managed float system. Role of institutions like IMF, World Bank, WTO, and regional currency arrangements (euro, ASEAN).
4. **International Capital Movements and Investments:** Studies short-term and long-term capital flows, foreign direct investment (FDI), foreign institutional investment (FII), and portfolio investments. Impact on growth and financial stability.
5. **International Financial Institutions:** Role of IMF, World Bank, ADB, BRICS Bank in providing stability, credit, and development assistance.

6. **Risk Management in International Finance:** Deals with risks such as foreign exchange risk, political risk, interest rate risk, and strategies like hedging and forward contracts.
7. **Global Financial Integration:** Examines globalization of financial markets, capital mobility, role of technology, and impact of crises (Asian Crisis, 2008 Global Crisis).

Conclusion

International finance plays a vital role in a globalized economy by ensuring smooth trade, investment, and financial stability among nations. Its scope extends from balance of payments to exchange rates, institutions, and capital markets, making it essential for both theoretical understanding and practical policy formulation in economics.

Balance of Payments: Structure and Components (NOTE BOOK)

International Monetary System – Bretton Woods System

The international monetary system refers to the institutional arrangements, rules, and conventions that govern exchange rates, international payments, and capital flows between nations. After the collapse of the Gold Standard in the interwar period, the need for a stable international system led to the establishment of the **Bretton Woods System** in 1944

Background

- During the **Great Depression (1929–1933)** and **World War II**, global trade and finance collapsed.
- Competitive devaluations and protectionist policies destabilized economies.
- To prevent such crises and promote reconstruction, **44 nations met in July 1944** at **Bretton Woods, New Hampshire (USA)**.
- The outcome was the creation of a new international monetary framework known as the **Bretton Woods System**, formally operational from **1945**.

Main Features of Bretton Woods System

1. **Fixed but Adjustable Exchange Rates**
    - Currencies were pegged to the US dollar, and the **US dollar was convertible into gold at $35 per ounce**.
    - Exchange rates could be adjusted only in cases of "fundamental disequilibrium," subject to IMF approval.
2. **Dollar as the Key Reserve Currency**
    - The US dollar became the central reserve and intervention currency.
    - Other countries held dollars as reserves instead of gold, creating a **gold–dollar standard**.
3. **Creation of International Institutions**
    - **International Monetary Fund (IMF):** To provide short-term financial assistance to countries facing balance of payments crises.
    - **World Bank (IBRD):** To provide long-term loans for reconstruction and development.
4. **Convertibility of Currencies**

    - Member nations committed to making their currencies convertible for current account transactions (trade-related payments).
5. **Exchange Rate Stability**
    - Nations were required to maintain exchange rates within ±1% of the declared parity against the dollar. Central banks intervened in foreign exchange markets to maintain this stability

Achievements of Bretton Woods System

- Provided stability in international trade and finance after WWII.
- Restored confidence in international monetary relations by avoiding competitive devaluations.
  Facilitated rapid reconstruction of war-torn economies (notably Europe and Japan).
- Expanded global trade and investment during 1950s–1960s, often called the **Golden Age of Capitalism**.

Weaknesses / Problems

1. **Dollar Overhang**:
    - With growing international trade, world demand for dollars exceeded the US gold reserves.
    - This created a situation where the US could not maintain convertibility of the dollar into gold.
2. **Triffin Dilemma**:
    - Economist Robert Triffin pointed out that for global liquidity, the US had to run balance of payments deficits, but persistent deficits undermined confidence in the dollar.
3. **Asymmetry in Adjustment**:
    - Deficit countries had to adjust policies under IMF pressure, while surplus countries (like West Germany, Japan) faced no such obligation.
4. **Speculative Pressures**:
    - In the late 1960s, speculative attacks on currencies, especially the dollar and pound sterling, increased instability.

Collapse of Bretton Woods System

- In **1971**, the US faced high inflation and balance of payments deficits due to the Vietnam War and domestic spending.
- President **Richard Nixon suspended the dollar's convertibility into gold (Nixon Shock, August 15, 1971)**.
- This effectively ended the Bretton Woods System.
- By **1973**, major currencies shifted to a system of **floating exchange rates**.

Conclusion

The Bretton Woods System was a landmark in the history of the international monetary system. It created a framework that combined stability with flexibility and promoted post-war economic growth. However, its dependence on the US dollar and inherent structural flaws led to its eventual breakdown in the early 1970s. The experience highlights the challenges of designing a stable and equitable international monetary order.

Causes of Failure

1. **Dollar Overhang**
    - By the 1960s, international trade and finance had grown rapidly.
    - The demand for dollars as reserves increased far beyond the US gold holdings.
    - Other countries, especially in Europe, started doubting America's ability to convert dollars into gold.

2. **Triffin Dilemma**
    - Robert Triffin highlighted a contradiction:
        - To provide global liquidity, the US had to run balance of payments deficits.
        - But persistent deficits weakened confidence in the dollar and threatened the system itself.
    - This dilemma made the system inherently unstable.
3. **US Balance of Payments Deficits**
    - The US was running large deficits due to heavy spending on the **Vietnam War** and domestic welfare programs ("Great Society" policies).
    - This reduced faith in the dollar's stability.
4. **Speculative Attacks**

    - With declining confidence, speculators attacked weak currencies (British pound in 1967, US dollar in late 1960s).
    - Central banks found it increasingly difficult to maintain fixed parities.
5. **Asymmetry in Adjustment**
    - Deficit countries had to adjust through IMF-backed austerity measures.
    - Surplus countries (like Japan and West Germany) were not forced to revalue their currencies, leading to global imbalances.
6. **Nixon Shock (1971)**
    - On **15 August 1971**, US President **Richard Nixon suspended the convertibility of the dollar into gold**, effectively ending the gold-dollar standard.
    - This unilateral move was the final blow to Bretton Woods.

Collapse and Aftermath

- By **1973**, the fixed exchange rate system was abandoned.

- Major currencies (dollar, yen, pound, deutschmark) began to **float freely** against each other.
- The Bretton Woods institutions (IMF, World Bank) continued to exist but with changed roles.

Conclusion

The Bretton Woods System failed because it was over-reliant on the US dollar, suffered from structural contradictions (Triffin dilemma), and could not withstand growing economic pressures of the 1960s. Its collapse marked the shift from a **fixed exchange rate system** to the modern era of **floating exchange rates**, which remains the dominant framework today.

Smithsonian Agreement (1971)

After the suspension of dollar–gold convertibility by US President Richard Nixon in August 1971 (known as the Nixon Shock), the Bretton Woods system of fixed exchange rates faced collapse. To restore some stability, the Group of Ten (G-10) industrialized countries met in December 1971 at the Smithsonian Institution, Washington D.C. and reached what became known as the Smithsonian Agreement.

Main Provisions of the Smithsonian Agreement

1. **Devaluation of the US Dollar**
    - The US dollar was officially devalued by about **8%**.
    - The price of gold was raised from **$35 to $38 per ounce** (i.e., fewer dollars could now buy the same amount of gold).
2. **Revaluation of Other Currencies**
    - Major currencies such as the Japanese yen, German deutschmark, and others were allowed to **appreciate against the dollar**.
    - This reduced the burden of adjustment solely on the US.
3. **Wider Exchange Rate Bands**
    - Member countries were allowed to let their exchange rates fluctuate by **±2.25%** around the agreed par value (instead of the earlier ±1%).
    - This provided greater flexibility while still keeping within a fixed exchange rate framework.
4. **Multilateral Agreement**
    - It was the first time that major industrial countries jointly realigned their exchange rates in a coordinated way.

Significance of the Smithsonian Agreement

- Temporarily restored confidence in the international monetary system.
- Described by US President Nixon as "**the most significant monetary agreement in the history of the world**."

- Marked the beginning of the **end of the Bretton Woods system**, as it attempted to patch the system rather than reform it completely.

Failure of the Smithsonian Agreement

- The measures were short-lived.
- US inflation and trade deficits continued to rise in the early 1970s.
- Speculative pressures on the dollar persisted.
- By **March 1973**, the fixed exchange rate system collapsed, and major currencies shifted to a **floating exchange rate regime**.

Conclusion

The Smithsonian Agreement of 1971 was a last attempt to save the Bretton Woods system by realigning exchange rates and widening the band of fluctuations. Although it provided temporary relief, it could not address the fundamental weaknesses of the dollar-gold standard, and within two years, the world moved to a new era of **flexible exchange rates**

Smithsonian Agreement (1971)

The Smithsonian Agreement was an attempt to rescue the collapsing Bretton Woods system after the United States suspended the convertibility of the dollar into gold in August 1971, a move widely known as the *Nixon Shock*. With the world economy facing uncertainty, the finance ministers of the Group of Ten industrialized nations met in December 1971 at the Smithsonian Institution in Washington D.C. to negotiate a new international monetary arrangement.

Under the Agreement, the US dollar was officially devalued by raising the price of gold from 35 dollars to 38 dollars per ounce. This meant that the dollar lost about 8 percent of its value in relation to gold. At the same time, several other major currencies such as the Japanese yen, the German deutschmark, and the British pound were revalued upward against the dollar. This collective realignment of exchange rates was an unprecedented step in international monetary history.

Another important aspect of the Smithsonian Agreement was the decision to widen the permissible fluctuation bands around fixed exchange rates. While the Bretton Woods system had allowed only a 1 percent movement on either side of the official parity, the Smithsonian Agreement permitted currencies to fluctuate by 2.25 percent above or below the set value. This was meant to give more flexibility to governments and reduce speculative pressures in the foreign exchange markets.

Although hailed by President Nixon as “the most significant monetary agreement in the history of the world,” the Smithsonian arrangement was essentially a compromise that postponed rather than solved the deeper problems of the international monetary system. The fundamental weaknesses of the dollar, particularly America’s persistent balance of payments

deficits and rising inflation, were not addressed. As a result, confidence in the dollar remained weak, and by 1973 speculative attacks forced the system of fixed exchange rates to collapse entirely. The world then moved into the era of floating exchange rates, which continues to this day.

In conclusion, the Smithsonian Agreement of 1971 was a short-lived attempt to stabilize the world monetary system by adjusting exchange rates and allowing greater flexibility. While it temporarily revived confidence, it ultimately failed to overcome the structural contradictions of the Bretton Woods framework and paved the way for the transition to floating exchange rates

European Monetary System (EMS)

The European Monetary System (EMS) was an arrangement introduced in **March 1979** by the member states of the European Economic Community (EEC) to promote monetary stability in Europe. It was seen as a step toward greater economic and monetary integration among European nations, eventually paving the way for the Economic and Monetary Union (EMU) and the creation of the euro.

Objectives of EMS

1. To achieve **monetary stability** in Europe by reducing exchange rate fluctuations.
2. To promote **economic integration** and facilitate trade within Europe.
3. To prepare the ground for a **single European currency** in the future.
4. To protect European economies from the instability caused by fluctuations in the US dollar after the collapse of the Bretton Woods system.

Main Features

1. **Exchange Rate Mechanism (ERM):**
   At the core of the EMS was the ERM, under which member currencies were tied to each other within fixed but adjustable margins. Each currency was allowed to fluctuate only within a band (±2.25% or ±6%) around a central rate.
2. **European Currency Unit (ECU):**
   A basket currency composed of a weighted average of member currencies. The ECU served as a reference for exchange rates and later became the basis for the euro.
3. **Credit Mechanisms:**
   Short-term and medium-term credit facilities were created to help countries maintain exchange rate stability in times of pressure.
4. **Policy Coordination:**
   Member states had to coordinate their economic and monetary policies to ensure stability and convergence.

Working of EMS

- Each member currency was linked to the ECU and indirectly to other currencies.
- When a currency approached its limit within the ERM, central banks intervened in the foreign exchange market by buying or selling currencies.
- Periodic adjustments (realignments) were made to correct imbalances and restore competitiveness.

Achievements of EMS

1. It brought **exchange rate stability** to Europe compared to the 1970s.
2. It encouraged **policy coordination** and convergence of inflation rates.
3. It promoted **greater intra-European trade and investment**.
4. It acted as a stepping-stone toward the **Maastricht Treaty (1992)** and the eventual launch of the euro in 1999.

Limitations of EMS

1. Differences in economic strength made it difficult for weaker economies to maintain fixed rates.
2. The system was criticized as being dominated by the **German Deutsche Mark**, since other countries often had to follow Germany's monetary policy.
3. The **1992–93 currency crisis** exposed its weakness, as currencies like the British pound and Italian lira had to exit the ERM.
4. Realignments often created uncertainty in financial markets.

Conclusion

The EMS was a crucial experiment in regional monetary cooperation. Despite its challenges, it succeeded in preparing Europe for deeper integration, culminating in the establishment of the **Economic and Monetary Union (EMU)** and the adoption of the **euro** in 1999. Thus, the EMS is remembered as an important transitional phase in Europe's journey toward monetary unification.

<u>Convertibility of Currency</u>

Meaning:
Convertibility of currency refers to the freedom with which a country's currency can be exchanged for foreign currencies and vice versa at market-determined exchange rates. In other words, it implies the ability of residents and non-residents to freely convert the domestic currency into foreign currency for current account transactions (like trade in goods and services) and/or capital account transactions (like investment and loans).

It is an essential aspect of a liberalized economy, as it allows smooth participation in global trade and capital flows.

Types of Convertibility

1. **Current Account Convertibility:**
    - This allows free exchange of currency for purposes related to international trade in goods and services, travel, education, remittances, etc.
    - It ensures that exporters and importers can easily convert foreign currency into domestic currency and vice versa.
    - India accepted current account convertibility in **1994** under IMF Article VIII.
2. **Capital Account Convertibility (CAC):**
    - This refers to the freedom to convert domestic financial assets into foreign financial assets and vice versa at market-determined rates.
    - It covers investments, loans, banking capital flows, portfolio investment, etc.
    - Full CAC carries risks of financial instability; hence, India has followed a cautious approach, introducing it gradually based on the **Tarapore Committee (1997, 2006)** recommendations.

Advantages of Currency Convertibility

1. **Promotes International Trade:** By reducing restrictions, it facilitates smoother export-import transactions.
2. **Encourages Foreign Investment:** Convertibility attracts foreign investors since they can repatriate profits easily.
3. **Efficient Allocation of Resources:** Free convertibility allows capital to flow into sectors where returns are higher.
4. **Integration with Global Economy:** It helps a country become part of the global financial system.
5. **Improves Balance of Payments:** Encourages exports and remittances by ensuring smooth currency exchanges.

Disadvantages / Risks

1. **Speculative Attacks:** Free capital movement may expose the economy to sudden inflows/outflows of foreign funds.
2. **Exchange Rate Volatility:** Convertibility can make the domestic currency vulnerable to global market fluctuations.
3. **Risk to Financial Stability:** Emerging economies with weak financial systems may face crises (e.g., Asian Financial Crisis, 1997).
4. **Inflationary Pressures:** Sudden capital inflows may create excess liquidity, fueling inflation.

Convertibility in India

- **Current Account:** Achieved in 1994. Residents and businesses are free to exchange currency for trade, services, remittances, and travel-related purposes.
- **Capital Account:** India follows a **partial convertibility** system.

    - Foreign investors can invest in Indian markets subject to regulations. Indian firms can invest abroad up to certain limits.
    - Residents have limited freedom to remit foreign exchange abroad under the **Liberalised Remittance Scheme (LRS)**.
- India has deliberately avoided **full capital account convertibility** due to risks of capital flight and financial instability.

Conclusion

Currency convertibility is a key feature of an open economy. While current account convertibility is almost universal today, capital account convertibility remains a sensitive issue, especially for developing economies. India has adopted a gradual and cautious approach to ensure stability while integrating with global markets. A balanced policy combining convertibility with safeguards is essential to reap its benefits while avoiding risks.

Exchange Rate Determination

Exchange rate is the rate at which one currency is exchanged for another. It is determined by the interaction of **demand and supply of foreign exchange** in the international money market. The way this determination happens depends on whether the economy follows a **fixed** or a **flexible (floating)** exchange rate system.

1. Fixed Exchange Rate System

- **Meaning**: Under a fixed exchange rate system, the government or central bank pegs the value of its currency to another currency (like USD) or to a basket of currencies or gold.

- **How Determined**:
    - The government declares an official exchange rate.
    - If demand and supply of foreign currency cause the market rate to deviate from the fixed rate, the central bank intervenes.

        - If **excess demand** for foreign exchange arises (currency depreciates), the central bank supplies foreign currency from its reserves.
        - If **excess supply** arises (currency appreciates), the central bank purchases foreign currency to maintain the fixed parity.
- **Outcome**: Stability in exchange rates, but requires large foreign exchange reserves. India before 1991 followed a fixed exchange rate system where the rupee was pegged to a basket of currencies

2. Flexible (Floating) Exchange Rate System

- **Meaning**: Under flexible exchange rates, the value of currency is determined entirely by the market forces of demand and supply of foreign exchange, without government intervention.
- **How Determined**:
    - If **demand for foreign currency > supply**, the domestic currency **depreciates** until equilibrium is restored.
    - If **supply > demand**, the domestic currency **appreciates**.

Case 1: Excess Demand for Foreign Exchange (Currency tends to Depreciate)

- Suppose **India has fixed the exchange rate at ₹80 = 1 USD.**
- But because Indian importers need more dollars to pay for goods, the **demand for USD rises**.
- In the open market, this higher demand would normally push the exchange rate to, say, **₹85 = 1 USD** (rupee depreciation).
- Since this deviates from the official fixed rate, the **RBI intervenes**.

What RBI does:

- RBI supplies dollars from its **foreign exchange reserves** at the fixed rate of ₹80.
- By supplying USD, it meets the excess demand, preventing the rupee from depreciating beyond the fixed rate.

Example in real life: Before 1991, India had a fixed exchange rate system. If there was a shortage of foreign currency due to higher imports (like oil), RBI would release dollars from its reserves to keep the rupee stable.

Case 2: Excess Supply of Foreign Exchange (Currency tends to Appreciate)

- Again, assume the fixed rate is **₹80 = 1 USD**.
- Now, suppose Indian exporters are earning a lot of dollars, and foreign investors are sending money into India. So, **supply of USD is greater than demand**.

- In the open market, this would normally push the rate to, say, **₹75 = 1 USD** (rupee appreciation).
- This deviates from the official rate, so RBI intervenes.

What RBI does:

- RBI **purchases the excess dollars** at the fixed rate of ₹80.
- This prevents the rupee from appreciating and keeps the exchange rate stable.
- By doing this, RBI's **foreign exchange reserves increase**.

Example in real life: When large FDI inflows come into India, there is excess supply of dollars. RBI often buys those dollars to prevent the rupee from becoming “too strong,” which would hurt exports.

Excess demand for forex → RBI sells foreign currency → prevents depreciation.
Excess supply of forex → RBI buys foreign currency → prevents appreciation.

- **Outcome**: Automatic adjustment of balance of payments, no need for large reserves, but exchange rates may fluctuate sharply.
  India after 1993 shifted to a **market-determined exchange rate system** (though RBI still intervenes sometimes → called "managed float").

Key Differences Between Fixed & Flexible Systems

Aspect	Fixed Exchange Rate	Flexible Exchange Rate
Determination	By government/central bank	By demand & supply of forex
Stability	High stability	High volatility
Central Bank Role	Continuous intervention	Little/no intervention
Reserves Needed	Large forex reserves	No large reserves required
Adjustment	Artificial (policy-driven)	Automatic (market-driven)

MODULE 3: FOREIGN EXCHANGE MARKET

Foreign Exchange Market: Meaning and Nature

Meaning

The **foreign exchange market** (forex market) is a market in which currencies of different countries are bought and sold. It provides a mechanism through which international payments are settled and exchange rates are determined.

Since trade, investment, tourism, and capital flows involve different national currencies, the foreign exchange market acts as a medium for conversion of one currency into another. It ensures smooth functioning of international economic transactions.

In simple terms, it is the market where **foreign currencies are exchanged, prices of currencies (exchange rates) are determined, and foreign currency transactions are facilitated.**

Nature of the Foreign Exchange Market

1. **Global and Decentralised Market**
    - The forex market is the **largest financial market in the world**, operating across countries and time zones.
    - It has no centralised location; transactions are conducted electronically through banks, brokers, and financial institutions.
2. **Dual Character: Wholesale and Retail**
    - At the **wholesale level**, transactions take place between commercial banks, central banks, corporations, and financial institutions involving very large amounts.
    - At the **retail level**, smaller transactions are conducted for travel, remittances, and small business purposes.
3. **Operates Through Financial Institutions**
    - Major participants are commercial banks, central banks, foreign exchange brokers, multinational corporations, and traders.
    - Commercial banks act as both buyers and sellers of foreign currencies on behalf of clients.
4. **Integration of Markets**
    - The foreign exchange market is highly integrated due to modern communication technology.
    - Price changes in one part of the world are instantly transmitted to other parts.
5. **Continuous Operation (24-hour Market)**
    - The forex market works round the clock because of different time zones.
    - For example, when the New York market closes, the Tokyo market opens, ensuring global continuity.
6. **Determination of Exchange Rates**

    - One of the primary functions of the forex market is to determine the value of one currency in terms of another, i.e., the **exchange rate**.
    - In a flexible system, this is determined by demand and supply; in a fixed system, it is maintained by central bank intervention.
7. **Variety of Transactions**
    - The market deals with different types of transactions:
        - **Spot transactions** (immediate delivery).
        - **Forward transactions** (future delivery at agreed rate).
        - **Swap, options, and futures contracts**.
8. **Speculation and Hedging**
    - Apart from trade, the forex market is also used for **speculation** (profiting from exchange rate fluctuations) and **hedging** (minimising risks of losses due to currency fluctuations).

9. **Regulated and Managed**
    - In most countries, central banks regulate and supervise foreign exchange markets to ensure stability.
    - Example: In India, the **Reserve Bank of India (RBI)** manages the forex market through monetary policy and exchange rate management.

Conclusion

The foreign exchange market is the backbone of international trade and finance. Its nature is global, continuous, and highly dynamic. By providing a mechanism for currency conversion, exchange rate determination, risk management, and international capital flow, the forex market plays a crucial role in promoting international economic integration.

Participants in the Foreign Exchange Market

The **foreign exchange (forex) market** is a global financial market where currencies are bought and sold. Its smooth functioning depends on a variety of participants, ranging from individuals to large institutions. Each plays a distinct role in demand and supply of foreign exchange.

Main Participants

1. **Commercial Banks**
    - They are the **major players** in the forex market.
    - Banks buy and sell foreign currencies for their clients (importers, exporters, tourists, investors) and also trade for their own profit.
    - Example: SBI, ICICI, Citibank, HSBC.
2. **Central Banks and Monetary Authorities**
    - Central banks regulate and supervise the forex market.

    - They intervene to stabilise exchange rates, control inflation, or maintain reserves.
    - Example: Reserve Bank of India (RBI), Federal Reserve (USA).
3. **Foreign Exchange Brokers**
    - They act as **intermediaries** between buyers and sellers of foreign currency.
    - Brokers earn commission by bringing together banks, corporations, and investors.
4. **Multinational Corporations (MNCs)**
    - MNCs need foreign exchange for investment, trade, and business operations across countries.
    - They demand forex to pay for imports, repatriate profits, or finance overseas subsidiaries.
5. **Exporters and Importers (Traders)**
    - Exporters **supply foreign currency** when they earn foreign exchange from sales abroad.
    - Importers **demand foreign currency** to pay for goods and services purchased from other countries.
6. **Investors and Speculators**
    - **Investors** participate to invest in foreign assets, stocks, or real estate.
    - **Speculators** buy and sell foreign currencies to make profits from exchange rate fluctuations, adding liquidity to the market.
7. **Tourists and Students**
    - Individuals travelling abroad for tourism, education, or medical purposes require foreign exchange, contributing to retail-level demand.
8. **Government and Public Sector Units**
    - Governments require foreign exchange to service external debt, pay for imports like oil, and manage foreign aid.
    - Public sector enterprises involved in international trade also participate.

Conclusion

The foreign exchange market is not dominated by a single group, but by a network of participants—banks, central banks, brokers, corporations, traders, investors, governments, and individuals. Their combined activities ensure currency conversion, liquidity, and stability in international financial transactions

Retail and Wholesale Components of Foreign Exchange Market

The **foreign exchange market** has two important segments: **wholesale** and **retail**. These segments differ in terms of participants, transaction size, and purpose. Together, they ensure smooth functioning of international currency exchange.

1. Wholesale Forex Market

Meaning: The wholesale forex market is the **inter-bank market**, where currencies are traded in **large volumes** among banks, financial institutions, and central banks.

- **Participants**:
  - Commercial banks
  - Central banks (e.g., RBI, Federal Reserve)
  - Foreign exchange brokers
  - Multinational corporations (MNCs)
- **Features**:
  - Large-scale transactions, usually millions of dollars.
  - Continuous global operation (24-hour market).
  - Exchange rates are determined here by demand and supply (interbank rates).
  - More emphasis on forward contracts, swaps, and hedging for trade and investment purposes.
- **Example**:
  When SBI trades dollars with Citibank in bulk to settle trade payments of Indian importers, it is a wholesale market transaction.

2. Retail Forex Market

Meaning:

The retail forex market deals with **small-scale transactions** carried out by individuals, small businesses, and tourists. It represents the "customer level" of the forex market.

- **Participants**:
  - Exporters and importers of goods and services
  - Tourists, students, and individuals travelling abroad
  - Small investors and remittance senders/receivers
- **Features**:
  - Small-value transactions compared to wholesale.
  - Exchange rates are slightly higher than wholesale (banks add a margin or spread).
  - Focus is on spot transactions—like buying foreign currency for travel, education, or remittances.
  - Conducted mainly through banks, money changers, or authorised forex dealers.
- **Example**:
  When a student in India buys USD 2,000 from HDFC Bank to pay tuition fees abroad, it is a retail forex transaction.

Key Differences Between Wholesale and Retail Forex Markets

Aspect	Wholesale Forex Market	Retail Forex Market
Scale of Transaction	Very large (millions of dollars)	Small (hundreds or thousands of dollars)
Participants	Banks, central banks, MNCs, brokers	Tourists, students, small traders, individuals
Rates	Interbank rates (base rates)	Higher, includes dealer's margin
Purpose	Settling international trade, investment, hedging	Travel, education, remittances, small trade
Market Type	Inter-bank, institutional	Customer-level, individual

Conclusion

The forex market operates at two interconnected levels—**wholesale (inter-bank)** and **retail (customer)**. The wholesale market sets the basic exchange rates, while the retail market provides access to individuals and businesses. Both together ensure smooth flow of foreign currency across economies.

Role of FEDAI

Introduction

The **Foreign Exchange Dealers' Association of India (FEDAI)** was established in 1958. It is an association of banks dealing in foreign exchange in India. FEDAI works under the overall guidelines of the **Reserve Bank of India (RBI)** and plays a vital role in regulating and streamlining foreign exchange transactions in the country.

Its main objective is to frame rules, guidelines, and procedures for foreign exchange business to bring uniformity and discipline among authorised dealers.

Roles and Functions of FEDAI

1. **Framing Rules and Guidelines**
    - FEDAI issues guidelines and rules for day-to-day forex transactions handled by authorised dealers (AD Category-I banks).
    - These include exchange rate quotations, handling of foreign bills, and documentation requirements.
2. **Uniformity in Charges and Practices**
    - It standardises service charges on forex transactions like remittances, drafts, travellers' cheques, export bills, etc.
    - This prevents unhealthy competition among banks.
3. **Training and Development**
   FEDAI conducts training programmes, workshops, and certification courses for bankers and forex dealers.
    - It helps in capacity building and improving professional skills in forex operations.
4. **Liaison Between Banks and RBI**
    - FEDAI acts as a bridge between authorised dealers (banks) and the RBI.
    - It communicates RBI's policy directions to banks and conveys practical difficulties of banks back to RBI.
5. **Exchange Rate Mechanism (Earlier Role)**
    - Before the shift to a market-determined exchange rate system (1993), FEDAI played a direct role in setting daily exchange rates for different currencies in consultation with RBI. Now, it provides guidance on operational aspects, while rates are determined by market forces.
6. **Dispute Resolution**
    - FEDAI helps settle disputes between member banks related to forex transactions.
    - It lays down codes of conduct and ensures compliance.
7. **Supporting International Trade**
    - By standardising procedures and charges, FEDAI ensures smooth processing of export/import documents, which facilitates India's international trade.
8. **Advisory Role**
    - FEDAI advises its member banks on technical matters, regulatory changes, and global best practices in forex management.

Conclusion

FEDAI plays a crucial role in maintaining order, transparency, and professionalism in India's foreign exchange market. While RBI is the regulator, FEDAI acts as the **industry-level self-regulatory body** for authorised dealers. By framing guidelines, training personnel, and liaising with RBI, it strengthens India's forex market and supports international trade and capital flows.

Role of FEMA

Introduction

The **Foreign Exchange Management Act (FEMA), 1999** was enacted by the Government of India to replace the earlier **Foreign Exchange Regulation Act (FERA), 1973**. FEMA came into effect on **June 1, 2000**, with the objective of facilitating external trade and payments, and promoting the orderly development and maintenance of the foreign exchange market in India.

Unlike FERA, which was restrictive and criminalised violations, FEMA is **liberal, facilitative, and civil in nature**. It aligns India's foreign exchange management with a liberalised and globalised economic framework.

Role and Functions of FEMA

1. **Facilitating Foreign Trade and Payments**
    - FEMA provides a legal framework for making foreign exchange available for imports, exports, remittances, travel, education, and investment abroad.
    - It simplifies procedures for cross-border transactions.
2. **Regulation of Capital Account and Current Account Transactions**
    - FEMA distinguishes between **current account transactions** (trade, remittances, travel) and **capital account transactions** (FDI, portfolio investment, borrowing/lending abroad).
    - Current account transactions are generally free, while capital account transactions require RBI/government approval.
3. **Promotion of Foreign Exchange Market in India**
    - FEMA supports the development of a stable and efficient forex market.
    - It ensures orderly conditions by monitoring inflows and outflows of foreign currency.
4. **Liberalisation and Globalisation Support**
    - FEMA plays a key role in India's liberalisation policy post-1991 by allowing freer flow of capital and technology.
    - It encourages foreign investment, joint ventures, and collaborations.
5. **Conservation and Proper Use of Foreign Exchange**
    - FEMA ensures that forex resources are used only for legitimate purposes.
    - Misuse, such as money laundering or illegal transfers (hawala), is restricted.
6. **Powers of RBI and Central Government**
    - FEMA empowers the RBI to regulate, issue directions, and monitor forex transactions through authorised dealers (banks).
    - The central government frames rules and policies for capital inflows and outflows.
7. **Civil Law with Penalties**

    - Violations under FEMA are treated as **civil offences** (not criminal, unlike FERA).
    - It provides for monetary penalties, not imprisonment, except in cases of non-compliance with penalty orders.
8. **Encouraging Foreign Investment**
    - FEMA creates a transparent legal environment that builds investor confidence.
    - By regulating FDI, ECBs (External Commercial Borrowings), and NRI investments, it integrates India with global financial markets.

Conclusion

The **role of FEMA** is to provide a liberal and transparent framework for managing foreign exchange in India. It facilitates trade, promotes investment, supports integration with the world economy, and ensures orderly functioning of the forex market. In short, FEMA balances **liberalisation with regulation**, making it a cornerstone of India's external sector management.

1. Regulatory Framework of FEDAI

- **Establishment**: FEDAI was set up in **1958** as a voluntary association of banks authorised to deal in foreign exchange in India.
- **Nature**: It is a **self-regulatory body** working under the overall supervision of the **Reserve Bank of India (RBI)**.
- **Regulatory Functions**:
    1. **Rule-making authority**: Issues guidelines and rules for forex transactions (exchange rates, charges, documentation).
       Standardisation: Brings uniformity in service charges, procedures, and practices across banks.
    2. **Compliance and Code of Conduct**: Ensures that member banks follow RBI regulations in letter and spirit.
    3. **Training and Certification**: Provides professional training to forex dealers and conducts certification exams.
    4. **Advisory Role**: Acts as a link between RBI and authorised dealer banks, representing industry concerns.
    5. **Dispute Resolution**: Frames codes of conduct and resolves conflicts among member banks.

FEDAI is an **industry-level regulator** ensuring discipline, professionalism, and uniformity in forex dealings, while supporting RBI in policy implementation.

2. Regulatory Framework of FEMA

- **Enactment**: FEMA was enacted in **1999** and came into effect on **June 1, 2000**, replacing FERA, 1973.

- **Nature**: FEMA is a **legal framework** governing all cross-border forex transactions in India. Unlike FERA (restrictive and criminal), FEMA is **liberal, facilitative, and civil in nature**.

- **Regulatory Functions**:
    1. **Distinction between Current and Capital Account**: Allows free current account transactions but regulates capital account flows through RBI/Government.
    2. **RBI's Role**: Empowers RBI to regulate foreign exchange dealings through **authorised dealers (banks)**.
    3. **Central Government Role**: Issues policy guidelines for FDI, ECBs, overseas investment, and capital flows.
    4. **Monitoring Forex Transactions**: Ensures that foreign exchange is used only for legal and permissible purposes.
    5. **Penalties and Enforcement**: Provides for monetary penalties in case of violations (civil offence, not criminal).
    6. **Encouraging Investment and Trade**: Creates a transparent and investor-friendly environment for foreign investment.
    7. **Integration with Global Economy**: Facilitates India's liberalisation by allowing freer inflows/outflows of forex under regulation.

Exchange Rate Quotations: Direct, Indirect and Cross Rate

Meaning of Exchange Rate Quotation

An **exchange rate quotation** is the method of expressing the value of one currency in terms of another. In international trade and finance, banks, dealers, and forex markets quote exchange rates in standard formats so that buyers and sellers can carry out transactions smoothly.

There are three common types of exchange rate quotations: **Direct, Indirect, and Cross rates**.

Direct Quotation

- **Meaning**: Direct quotation shows the amount of **domestic currency** required to buy **one unit of foreign currency**. It expresses the exchange rate as *Home currency / 1 unit of foreign currency*.
- **Example (India)**: If ₹84 = 1 USD, this is a **direct quote** in India, since it shows how many rupees (domestic currency) are needed for 1 dollar (foreign currency).
- **Use**: Direct quotes are the most common method of quoting exchange rates in India and many other countries.

- **Rule**: When the **domestic currency depreciates**, the direct quote rises (more rupees needed for 1 USD).
  Direct quote = "How much of *our currency* for 1 unit of *their currency*?"

  Direct Quote = Home Currency/1 unit of Foreign Currency

Example (India): If ₹84 = 1 USD, then this is a **direct quote** in India because it shows how many rupees (domestic currency) are needed for 1 USD (foreign currency).

Indirect Quotation

- **Meaning**: Indirect quotation shows the amount of **foreign currency** obtainable for **one unit of domestic currency**. It expresses the exchange rate as *Foreign currency / 1 unit of home currency*.
- **Example (India)**: If 1 ₹ = $0.0119, this is an **indirect quote** in India, since it shows how many dollars (foreign currency) can be obtained for 1 rupee (domestic currency).
- **Use**: Indirect quotes are less common but used for comparison or in some international markets.
- **Rule**: When the **domestic currency depreciates**, the indirect quote falls (fewer dollars received for ₹1).

Indirect quote = "How much of *their currency* for 1 unit of *our currency*?"

Indirect Quote = Foreign Currency/1 unit of Home Currency

Example (India): If 1 ₹ = $0.0119, then this is an **indirect quote** in India because it shows how much foreign currency (USD) is obtained for 1 rupee.

Cross Rate

- **Meaning**: A **cross rate** is the exchange rate between two currencies, neither of which is the domestic currency, calculated through a **third common currency** (usually the US dollar).
- **Importance**: When a direct quotation between two currencies is not available in the market, dealers compute it using cross rates. This helps in international trade and arbitrage.
- **Formula**:
  A/B Rate= A/USD / B/USD
- **Example**:
  - Suppose: 1 USD = ₹84 and 1 USD = ¥146.
  - Then, the **cross rate between ₹ and ¥** = 146 ÷ 84 = **1.74 ¥ per ₹1**.

Cross rate links two foreign currencies through a common third currency (generally USD).

Percentage Spread

1. Meaning

In the foreign exchange market, banks and dealers quote two-way prices for currencies:

- **Bid Price** → the rate at which the bank is willing to **buy** foreign currency.
- **Ask (Offer) Price** → the rate at which the bank is willing to **sell** foreign currency.

The difference between these two is called the **Spread**. When expressed as a percentage of the Ask price, it is called the **Percentage Spread**.

It measures the dealer's margin or profit on currency transactions and also reflects the liquidity and efficiency of the forex market.

2. Formula

Percentage Spread= Ask Price – Bid Price / Ask price ×100

3. Numerical Example

Suppose a bank in India quotes for USD as:

Bid = ₹83.90 per USD

Ask = ₹84.10 per USD

Percentage Spread = 84.10–83.90 / 84.10 ×100 = 0.24%

This means the bank earns a margin of **0.24%** on buying and selling USD.

4. Significance of Percentage Spread

1. **Dealer's Profitability** – Spread is the basic return for forex dealers and banks.
2. **Liquidity Indicator** – Lower spreads mean high liquidity and active trading, while higher spreads suggest low liquidity.
3. **Transaction Cost for Traders** – A wider spread increases costs for importers, exporters, and investors.
4. **Market Efficiency** – Narrow spreads usually reflect competitive, transparent, and well-functioning forex markets.
5. **Risk Reflection** – In volatile or uncertain markets, spreads widen to cover risk.

5. Factors Affecting Spread Size

1. **Market Liquidity** – Highly traded currencies like USD, Euro, Yen have narrow spreads.
2. **Market Volatility** – During economic or political instability, spreads widen.
3. **Size of Transaction** – Larger wholesale deals usually get lower spreads than small retail transactions.

4. **Time Zone / Trading Hours** – Spreads narrow during peak trading hours (London–New York overlap) and widen in off-hours.
5. **Currency Demand & Supply** – High demand currencies have narrower spreads.

Conclusion

The **percentage spread** is a vital concept in the foreign exchange market. It reflects the **profit margin of dealers**, the **cost of currency conversion for customers**, and the **efficiency of the forex market**. Lower spreads benefit traders and businesses by reducing transaction costs, while higher spreads signal risk or inefficiency. Thus, percentage spread is not only a technical calculation but also a key indicator of overall market conditions.

International Capital Markets: Eurocurrency

Introduction

An **international capital market** refers to a financial system that enables the borrowing and lending of long-term funds across national borders. It provides opportunities for governments, corporations, and financial institutions to mobilize capital from investors worldwide. The international capital market is made up of several components, such as the **Eurocurrency market**, the **Eurobond market**, and the **foreign equity market**. Among these, the Eurocurrency market plays a vital role in facilitating global liquidity and financial integration.

Meaning of Eurocurrency Market

The **Eurocurrency market** is the market where deposits of a currency are held outside the country of issue and are lent to borrowers internationally.

- For example: **Eurodollars** are U.S. dollars deposited in banks outside the United States (say, in London or Singapore).
- Similarly, **Euroyen** refers to Japanese yen deposited in banks outside Japan.

Thus, the Eurocurrency market does not mean "currency in Europe," but rather any currency deposited outside its home country.

Origin and Growth

- The eurocurrency market began in the 1950s when the Soviet Union, fearing seizure of its U.S. dollar deposits in America during the Cold War, placed them in European banks.
- London soon became the hub of Eurodollar transactions due to its liberal banking regulations.
- Over time, this market expanded to other currencies like yen, pounds, marks, and Swiss francis

Features of Eurocurrency Market

1. **International in nature** – It deals with currencies outside their country of origin.
2. **Short-term and medium-term funds** – Deposits are usually of 3 to 6 months.
3. **Free from regulations** – Compared to domestic banking, Eurocurrency markets have fewer restrictions.
4. **Wholesale market** – Mainly involves large-scale transactions between banks, corporations, and governments.
5. **Highly liquid and competitive** – Because of global participation and minimal regulations.

Functions of Eurocurrency Market

1. **Mobilization of International Capital** – It channels surplus funds from one country to deficit countries.
2. **Providing Liquidity** – Corporations and governments get easy access to short-term funds in foreign currencies.
3. **Efficient Allocation of Resources** – Funds are directed to the areas where they can earn the highest returns.
4. **Facilitating International Trade and Investment** – By providing loans in foreign currencies, it supports cross-border trade and business expansion.
5. **Alternative to Domestic Markets** – When domestic capital markets are restricted, the Eurocurrency market provides flexible financing.

Advantages

- **Lower interest rates** due to absence of strict regulations.
- **Diversification** of funding sources for borrowers.
- **Easy availability of credit** for multinational corporations.
- **Attractive returns** for depositors due to competitive rates.
- **Global financial integration** by linking savers and borrowers worldwide.

Risks and Criticisms

- **Lack of regulation** may increase the risk of instability.
- **Speculative movements of capital** can create volatility.
- **Exposure to exchange rate risk** for borrowers and lenders.
- Can lead to **capital flight** from developing countries.

Conclusion

The **Eurocurrency market** is a crucial segment of international capital markets. It enhances the availability of funds for international trade and investment and has contributed significantly to global financial integration. However, its unregulated nature and exposure to risks also call for prudent monitoring. Despite its challenges, the Eurocurrency market remains a cornerstone of modern global finance.

Eurocurrency Deposits, Loans, Bonds, and Notes Market

Introduction

The **Eurocurrency Market** is the largest and most important component of the international capital market. It refers to deposits and loans denominated in a currency that is held outside its country of origin. Over time, this market has evolved into different segments such as deposits, loans, bonds, and notes. These provide flexible financial instruments for governments, multinational corporations (MNCs), banks, and investors.

1. Eurocurrency Deposits Market

- **Meaning**: A Eurocurrency deposit is a deposit of currency in a bank outside the home country of that currency.
    - Example: U.S. dollars deposited in a bank in London are called **Eurodollars**.

- **Features**:
    - Short-term in nature (usually 3–6 months).
    - Placed by corporations, central banks, or governments.
    - Free from domestic banking regulations.
- **Role**: Provides liquidity for international trade and investment.

2. Eurocurrency Loans Market

- **Meaning**: The market where banks use Eurocurrency deposits to provide loans to corporations, governments, or other banks.

- **Characteristics**:
    - Usually syndicated loans (provided by a group of banks to share risk).
    - Loans are short-term or medium-term, with flexible interest rates (often linked to **LIBOR** – London Interbank Offered Rate).
    - Widely used by developing countries and MNCs for working capital.

- **Example**: A corporation borrowing Eurodollars from a consortium of banks for project financing.

3. Eurobond Market

- **Meaning**: Bonds issued in a currency different from the country where they are sold.
    - Example: A Japanese company issues a bond denominated in U.S. dollars, but sells it in Europe → This is a **Eurobond**.
- **Features**:

    - Long-term in nature (5–30 years).

    - Issued outside the regulations of the country whose currency is used.
    - Can be **fixed-rate** (interest remains constant) or **floating-rate** (interest linked to LIBOR or EURIBOR).

- **Advantages**: Wide investor base, lower cost of borrowing, less regulation

4. Euro Notes Market

- **Meaning**: Short-term debt instruments issued in Eurocurrency, also known as **Euro-Commercial Papers (ECPs)**.

- **Features**:
    - Maturity usually less than 1 year.
    - Issued at a discount and redeemed at face value.
    - Popular among corporations needing quick funds at lower interest rates.
- **Example**: A multinational issuing 6-month Eurodollar notes to finance working capital.

Advantages of Eurocurrency Deposits, Loans, Bonds, and Notes

1. Provides a **wide pool of international funds**.
2. Offers **lower interest costs** due to competitive global rates.
3. Increases **financial flexibility** for corporations and governments.
4. Helps in **diversification of risk** by raising funds globally.
5. Provides investors with **higher returns** compared to domestic markets.

Risks and Criticisms

- Lack of strict regulation can cause instability.
- Borrowers face **exchange rate risk**.
- Excessive reliance may cause **external debt problems** for developing countries.
- Encourages **capital flight** from weaker economies.

Conclusion

The **Eurocurrency deposits, loans, bonds, and notes markets** are central to global finance, as they provide liquidity, credit, and investment opportunities across borders. While they support international trade, investment, and development, they also involve risks of volatility and debt accumulation. Overall, these markets symbolize the globalization of finance and remain crucial in the working of the international capital market.

International Equity Market

Introduction

An **equity market** is a financial market where shares of companies are issued and traded. When such transactions take place across national borders, it forms the **international equity market**. It provides a platform for corporations to raise equity capital from foreign investors and for investors to diversify their portfolios internationally. With globalization and liberalization of financial systems, international equity markets have become an essential part of the global capital market.

Meaning of International Equity Market

The **international equity market** is a market where companies raise funds by issuing shares to foreign investors, and where investors can buy and sell equities of foreign corporations. It enables cross-border ownership of businesses and integration of financial markets.

Example: An Indian company like Infosys issuing American Depository Receipts (ADRs) in the U.S. to attract American investors.

Forms of International Equity Instruments

1. **Direct Equity Issues**
    - Companies list their shares on foreign stock exchanges (cross-listing).
    - Example: Tata Motors listed on the New York Stock Exchange (NYSE).
2. **Depository Receipts (DRs)**
    - **American Depository Receipts (ADRs):** Shares of non-U.S. companies traded in the U.S. in the form of receipts issued by U.S. banks.
    - **Global Depository Receipts (GDRs):** Receipts issued in multiple international markets, usually in Europe, representing ownership of a company's shares.
3. **Foreign Institutional Investment (FII)**
    - Investment by mutual funds, pension funds, and other institutional investors from one country into the equity markets of another country.
4. **Exchange-Traded Funds (ETFs) and International Equity Indices**
    - Investors can buy ETFs that track global equity indices (e.g., MSCI World Index, FTSE Global Equity Index).

Features of International Equity Market

- **Cross-border ownership** – Investors from one country can hold shares in companies located abroad.
- **Global integration** – Connects financial systems of different nations.
- **Liquidity and depth** – Provides a large pool of capital for corporations.
- **Dual listing** – Companies often list in both domestic and foreign exchanges.

- **Denominated in foreign currency** – Equity is priced in the currency of the host country.

Benefits of International Equity Market

1. **For Companies**:
    - Access to a larger pool of capital.
    - Diversification of investor base.
    - Enhanced global visibility and reputation.

2. **For Investors**:
    - Portfolio diversification across countries.
    - Potential for higher returns from emerging markets.
    - Access to global blue-chip companies.

3. **For Economies**:
    - Promotes capital inflows.
    - Encourages global economic integration.
    - Improves efficiency in resource allocation.

Risks and Challenges

- **Exchange rate risk** – Returns depend on currency fluctuations.
- **Political and regulatory risk** – Policies and laws of host country may affect investors.
- **Market volatility** – International markets may be unstable during crises.
- **Information asymmetry** – Foreign investors may lack adequate information.

Conclusion

The **international equity market** has become a vital channel of finance in the age of globalization. It benefits companies by widening their access to funds, and it allows investors to diversify and seek better returns. While risks like volatility, exchange rate fluctuations, and regulatory barriers exist, the international equity market continues to strengthen financial integration and support economic growth worldwide.

International Bond Market

Introduction

The **international bond market** is a major component of the global capital market where long-term debt instruments (bonds) are issued and traded across national borders. It enables governments, multinational corporations (MNCs), and international organizations to raise

funds from foreign investors. These bonds are denominated in different currencies and may be issued in domestic or foreign markets.

1. Domestic Bonds

- **Definition**: Bonds issued by a borrower in its **own country** and denominated in the **domestic currency**, but often subscribed to by both domestic and foreign investors.
- **Example**: Government of India issuing rupee-denominated bonds in India, which can also be purchased by foreign investors.
- **Features**:
    - Regulated by the domestic market laws.
    - Attractive for foreign investors if domestic currency is stable.

2. Foreign Currency Bonds

- **Definition**: Bonds issued in a **foreign currency** but sold in the domestic market of the borrower.
- These are often named after the host country. Examples include:
    - **Samurai Bonds** – Yen-denominated bonds issued in Japan by non-Japanese entities.
    - **Bulldog Bonds** – Pound sterling bonds issued in the UK by foreign entities.
    - **Yankee Bonds** – U.S. dollar bonds issued in the U.S. by foreign entities.
- **Role**: Helps borrowers tap international investors while using foreign currencies.

3. Foreign Currency Convertible Bonds (FCCBs)

- **Definition**: A type of corporate bond issued in a foreign currency that gives investors the **option to convert** the bond into a fixed number of equity shares of the issuing company.

- **Features**:
    - Issued in international markets (e.g., in USD, EUR, or Yen).
    - Attractive to investors because they carry both **fixed interest income** and **equity conversion potential**.
    - For companies, FCCBs provide **low-cost capital** compared to domestic loans.
- **Example**: An Indian company issuing FCCBs in London, which can later be converted into its equity shares listed on the Indian stock exchange.

4. Foreign Currency Exchangeable Bonds (FCEBs)

- **Definition**: A type of bond issued in a foreign currency that is exchangeable into the **equity shares of a group company** (not the issuing company itself).
- **Features**:

    - Distinct from FCCBs because conversion is into shares of a **different company** within the same corporate group.

    - Enables a parent or holding company to raise funds using the shares of its subsidiary as the underlying asset.
- **Example**: A holding company in India issues FCEBs abroad, exchangeable into equity shares of its subsidiary company listed in India.

Advantages of International Bond Market

1. **For Borrowers (Companies/Governments)**
    - Access to large pools of international capital.
    - Lower cost of borrowing compared to domestic markets.
    - Opportunity to borrow in foreign currency for international projects.

2. **For Investors**
    - Portfolio diversification across countries and currencies.
    - Attractive returns in stable economies.
    - Option of equity conversion (in FCCBs and FCEBs).

Risks and Challenges

- **Exchange rate risk** – Repayment burden increases if the domestic currency depreciates.
- **Regulatory and tax differences** – Each country has different laws affecting issuance.
- **Default risk** – Sovereign or corporate defaults can affect investor confidence.
- **Market volatility** – Global economic shocks can affect bond prices and yields.

Conclusion

The **international bond market**, with its different instruments such as **domestic bonds, foreign currency bonds, FCCBs, and FCEBs**, plays a vital role in mobilizing global savings for productive investment. While it provides opportunities for both issuers and investors, it also carries risks due to exchange rate fluctuations and global financial instability. Despite these challenges, it remains one of the most important sources of long-term finance in the global economy.

MODULE 2 CONTEMPORARY EXCHANGE RATES

Types of Fixed Exchange Rate Systems

A **fixed exchange rate system** is one in which the value of a country's currency is tied to another currency, a basket of currencies, or a commodity such as gold. However, within fixed regimes, economists distinguish between **hard pegs** and **soft pegs**, depending on the degree of commitment to maintaining the peg.

1. Hard Pegs

Hard pegs represent the **strongest form of fixed exchange rate**. In this system, the country either gives up its own currency or fixes its exchange rate so rigidly that it cannot be easily changed.

Types of Hard Pegs:
a) **Currency Board Arrangement:**

- A country legally commits to exchange its domestic currency for a foreign anchor currency at a fixed rate.
- The domestic money supply is fully backed by foreign reserves.
- Example: **Hong Kong's dollar pegged to the US dollar**.

b) **Dollarization/Euroization (Adoption of Foreign Currency):**

- A country abandons its national currency altogether and uses another country's currency as legal tender.
- Example: **Ecuador and El Salvador using the US dollar**.

Advantages: Strong credibility, low inflation, stable environment for trade and investment.
Disadvantages: Loss of independent monetary policy, dependence on the anchor country's monetary conditions.

2. Soft Pegs

Soft pegs represent a **more flexible form of fixed exchange rate**. The domestic currency is pegged to another currency but within a certain band or with some room for adjustment.

Types of Soft Pegs:
a) **Conventional Peg:**

- Currency is pegged to another currency (like USD or Euro) with very small margins of fluctuation (±1%).
- Central bank intervenes to maintain the peg.
- Example: **Saudi Riyal pegged to the US dollar**.

b) **Stabilized Arrangement / Crawling Peg:**

- Exchange rate is adjusted gradually in small amounts over time, to reflect inflation differentials or other economic factors.
- Example: **China's Yuan before 2005**.

c) **Pegged Exchange Rate within Bands:**

- The currency is allowed to fluctuate within a wider band (e.g., ±5–15%).
- Example: **European Monetary System (before euro)** allowed bands for member currencies.

Advantages: Provides stability for trade, but still allows some flexibility to absorb shocks.
Disadvantages: Vulnerable to speculative attacks, requires frequent interventions.

Conclusion

Hard pegs and soft pegs represent two ends of the fixed exchange rate spectrum.

- **Hard pegs** provide maximum stability but sacrifice monetary independence.
- **Soft pegs** offer more flexibility but can be vulnerable to crises if reserves are inadequate.

The choice depends on a country's economic structure, external sector dependence, and policy priorities.

Flexible Exchange Rate System

A **flexible exchange rate system** (also called floating exchange rate system) is one where the value of a country's currency is determined by the forces of demand and supply in the foreign exchange market, without being fixed by the government or monetary authority.

There are **two main types of flexible exchange rate systems**:

1. Free (Clean) Float

- In a **free float system**, the value of currency is determined purely by the forces of demand and supply in the foreign exchange market.
- The central bank does not intervene at all.
- Exchange rates change freely depending on international trade, capital flows, inflation, interest rates, etc.

Merits:

- Automatic adjustment of Balance of Payments (BoP).
- Reflects true market conditions.
- Provides monetary policy independence.

Demerits:

- High volatility and uncertainty in exchange rates.
- May discourage international trade and investment.
- Can lead to speculation and instability.

Example: US dollar, Euro, Pound, Yen are largely under free float (though sometimes central banks may still intervene slightly)

2. Managed (Dirty) Float

- In a **managed float system**, the exchange rate is primarily market-determined but the central bank intervenes occasionally to stabilize the currency or to achieve certain economic objectives.
- Intervention is done through buying or selling foreign currencies or using monetary policy tools.
- It is a compromise between fixed and free exchange rate systems.

Merits:

- Reduces excessive volatility and speculation.
- Provides stability for trade and investment.
- Helps correct short-term imbalances in BoP.

Demerits:

- Frequent intervention may distort the market mechanism.
- Requires large foreign exchange reserves.
- May be misused for political or short-term gains.

Example: Indian Rupee, Chinese Yuan, and many developing countries follow managed floating exchange rate systems

Conclusion

Flexible exchange rates can be of **two types**:

- **Free Float** (completely market-determined), and
- **Managed Float** (market-determined with central bank intervention).

Most modern economies prefer **managed floating exchange rates** because they combine the advantages of market flexibility with stability ensured by central bank regulation.

Participants in the Foreign Exchange Market

The **Foreign Exchange Market (Forex Market)** is a global market where currencies are bought and sold. It is the largest and most liquid financial market in the world. The major participants ensure smooth functioning by providing liquidity, hedging, speculation, and arbitrage opportunities.

1. Commercial Banks

- They are the main participants in the forex market.
- Act as *market makers* by buying and selling foreign exchange on behalf of customers (importers, exporters, travelers, investors).
- Also engage in proprietary trading to earn profits.
- Example: SBI, Citibank, HSBC, etc.

2. Central Banks and Monetary Authorities

- Central banks (like RBI, Federal Reserve, ECB) play a regulatory and stabilizing role.
- They intervene in the forex market to control exchange rate volatility, manage reserves, and maintain balance of payments stability.
- Example: RBI intervenes to prevent rupee depreciation or appreciation beyond comfort levels.

3. Foreign Exchange Brokers

- Act as intermediaries between buyers and sellers of foreign currency.
- They do not trade on their own account but help banks and clients to get the best rates.
- Earn commission for their services.

4. Corporations / Multinational Companies (MNCs)

- Engage in international trade and investment, leading to demand and supply of foreign currency.
- Importers require foreign currency to pay for goods and services, while exporters receive foreign currency from their sales.
- MNCs also hedge against exchange rate risks through forward contracts.

5. Government / Public Sector Units

- Governments participate for debt servicing, foreign aid, or defense purchases.

- Large-scale transactions by governments affect demand and supply in forex markets.

6. Non-Banking Financial Institutions (NBFIs)

- Insurance companies, mutual funds, pension funds, etc., invest abroad and thus generate demand for foreign exchange.
- They diversify their portfolios by investing in international assets.

7. Speculators

- Trade in forex market with the objective of making profits from fluctuations in exchange rates.
  Provide liquidity to the market but may also increase volatility.

8. Arbitrageurs

- Buy currency in one market at a lower rate and simultaneously sell it in another market at a higher rate.
- Their activity helps equalize exchange rates across different markets.

9. Tourists and Individuals

- Demand foreign exchange for travel, education, medical treatment, remittances, etc.
- Though small in volume compared to banks and corporations, they form part of the retail forex market.

Conclusion

The foreign exchange market is not dominated by a single participant but is a network of various players such as banks, central banks, corporations, brokers, speculators, arbitrageurs, and individuals. Each participant plays a unique role in ensuring liquidity, stability, and efficiency of the global forex market.

Retail and Wholesale Components of the Foreign Exchange Market

The **Foreign Exchange Market (Forex Market)** operates at two main levels:

1. **Wholesale Market**

2. **Retail Market**

Both segments are closely connected but differ in size, participants, and nature of transactions

1. Wholesale Forex Market

- Also known as the **Interbank Market**.
  It accounts for the **largest share of forex transactions** (about 90% of total volume).
- Transactions involve **large sums of foreign exchange** (millions of USD or more).

Main Participants:

1. **Commercial Banks & Financial Institutions** – Trade currencies in bulk for themselves or on behalf of clients.

2. **Central Banks** – Intervene to stabilize the exchange rate (e.g., RBI in India).
3. **Foreign Exchange Brokers** – Facilitate deals between large buyers and sellers.
4. **Multinational Corporations (MNCs)** – Conduct large transactions for trade, investment, or hedging.

Features:

- High-volume transactions.
- Wholesale rates (interbank rates) are **more favorable** compared to retail rates.
- Major instruments used: spot, forward, swap, futures, and options contracts.

Example:
SBI and Citibank dealing in USD/INR at interbank rates.

2. Retail Forex Market

- Represents the **smaller segment** of the forex market.
- Involves **individuals and small firms** who need foreign exchange for specific purposes.

Main Participants:

1. **Tourists & Travelers** – Need foreign currency for travel abroad.
2. **Students & Patients** – For education or medical treatment in foreign countries.
3. **Small Exporters/Importers** – Conduct smaller trade transactions.
4. **Workers & Remittances** – Sending or receiving money to/from abroad.
5. **Authorized Dealers / Money Changers** – Provide forex services to individuals.

Features:

- Low-value transactions compared to wholesale.
- Exchange rates are **less favorable** than interbank rates (include dealer's margin).
- Limited instruments: mostly spot transactions (immediate exchange).

Example:
A student buying USD for paying tuition fees abroad from an authorized dealer like Thomas Cook or a bank.

FEDAI (Foreign Exchange Dealers' Association of India) and FEMA (Foreign Exchange Management Act, 1999) are key pillars in India's foreign exchange regulatory system, designed to facilitate smooth cross-border transactions while maintaining economic stability and market integrity.

FEDAI Regulatory Framework

FEDAI is a self-regulatory organization established by India's banking sector to oversee the functioning of foreign exchange (forex) dealers. Its regulatory framework includes:

- Setting standards and codes of conduct for authorized forex dealers, ensuring transparency and ethical practices.
- Coordinating with the Reserve Bank of India (RBI) and following the guidelines laid down by RBI and FEMA.
- Organizing training and development programs to keep dealer personnel updated on regulatory changes and best practices.
- Enforcing reporting and compliance, including KYC (Know Your Customer) and AML (Anti-Money Laundering) regulations as mandated by RBI and FEMA.
- Conducting audits and internal reviews to ensure compliance with regulations and the FEDAI code of conduct.

Through these mechanisms, FEDAI enhances market discipline, fair pricing, and proper management of risk in forex transactions.

FEMA Regulatory Framework

FEMA was enacted in 1999 to modernize and liberalize India's foreign exchange market compared to the restrictive FERA it replaced. FEMA's regulatory framework is built on several pillars:

- Regulates all foreign exchange transactions, categorized into current account (trade, services, remittances) and capital account (investment, property transfers) transactions.
- Permits all current account transactions unless expressly prohibited, while capital account transactions are generally prohibited unless specifically permitted by law.
- Empowers the Central Government and RBI to make rules, place restrictions, and issue approvals for specific foreign exchange activities.
- Mandates reporting and compliance for individuals, businesses, and banks engaged in foreign exchange dealings.
- Imposes penalties and legal consequences for contraventions, with detailed procedures for adjudication and compounding breaches.
- Supports international obligations and best practices, such as anti-money laundering, counter-terrorism, and responsible use of foreign exchange.

FEMA provides a robust legislative and regulatory base for overseeing external trade, payments, inward and outward investments, and prevention of illicit activities affecting the country's financial markets.

Comparative Aspects

Aspect	FEDAI	FEMA
Legal Status	Self-regulatory organization (SRO)	Statutory Act (Law passed by Parliament)
Primary Function	Sets code of conduct, market standards	Regulates foreign exchange transactions
Governing Authority	Operates under RBI and FEMA guidelines	RBI and Central Government
Scope	Deals with authorized dealers, banks, forex market	Applies to all forex transactions in India
Enforcement	Audits, training, compliance monitoring	Legal penalties, adjudication, compounding mechanisms

Conclusion

FEDAI ensures fair practices and efficient functioning among forex dealers, while FEMA provides the legal and regulatory backbone for all foreign exchange activities in India. Together, they facilitate cross-border trade, investment, and payments, strengthen compliance, preserve market integrity, and support national economic growth

Foreign exchange arithmetic involves mathematical calculations to convert one currency into another, determine forward or cross rates, and calculate profits or losses in foreign exchange transactions. It is an essential topic in TYBA Economics, especially for understanding international trade and finance.

Basic Currency Conversion

- To convert an amount from one currency to another using an exchange rate, multiply or divide depending on the direction of conversion.
- Example: If the exchange rate is
- £1=₹103.10
- £1=₹103.10 and the amount is ₹5000, to convert rupees to pounds:

$$\text{Amount in Pounds}=\frac{₹5000}{103.10}=£48.50$$

$$\text{Amount in Pounds}=\frac{₹5000}{103.10}=£48.50$$

- To convert pounds to rupees, multiply by the rate:

$$£50\times 103.10=₹5155$$

$$£50\times 103.10=₹5155$$

Cross Currency Rate Calculation

- If USD/INR = 83.00 and EUR/USD = 1.10, then EUR/INR can be calculated using:

$$1\text{ EUR}=1.10\text{ USD}\times 83.00\text{ INR}=91.30\text{ INR}$$

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Forward Rate Calculation

- When dealing with forward contracts, consider interest rate differentials to calculate the forward rate:

$$\text{Forward Rate}=\text{Spot Rate}+\text{Forward Points}$$

$$\text{Forward Rate} = \text{Spot Rate} + \text{Forward Points}$$

- Example: If Euro 1 = USD 1.40, interest rate differential is 6%, for 90 days, you would calculate the forward points and add to spot rate.

Example Problems

Scenario	Exchange Rate	Calculation	Result
Rupees to Pounds	£1 = ₹103.10	₹5000 ÷ 103.10	£48.50
Pounds to Rupees	£1 = ₹103.10	£50 × 103.10	₹5155
USD to CHF Direct Quote	USD/CHF = 0.91	1 ÷ 0.91	$1.10 for 1 CHF
GBP to USD	£1 = $1.35	£575 × 1.35	$776.25
Cross Rate EUR/INR	EUR/USD = 1.10, USD/INR = 83.00	1.10 × 83.00	91.30 INR

Application in Global Trade

- Exporters and importers use foreign exchange arithmetic to calculate profits/losses, invoice values, and banking settlements during international transactions.
- Banks and dealers use these calculations for hedging, swaps, and determining forward premiums or discounts

Exchange rate quotations are ways to express the value of one currency in terms of another. There are three main types of exchange rate quotations: direct, indirect, and cross rates. Understanding these quotations is essential in foreign exchange arithmetic and economics.

Direct Quotation

- Direct quotation shows the domestic currency price of one unit of foreign currency.
- It is expressed as: Domestic Currency / 1 Unit of Foreign Currency.
- For example, if in India the exchange rate is given as ₹74 per 1 USD, this is a direct quote for USD in India.
- It indicates how much domestic currency (INR) is needed to buy one unit of foreign currency (USD).

Indirect Quotation

- Indirect quotation is the reciprocal of the direct quote.
- It shows the foreign currency price of one unit of domestic currency.
- Expressed as: Foreign Currency / 1 Unit of Domestic Currency.
- For India, if direct quote is ₹74/USD, the indirect quote is 1/74 = 0.0135 USD per INR.
- Indirect quotes indicate how much foreign currency one unit of domestic currency can buy.

Cross Rate

- Cross rate is the exchange rate between two foreign currencies, neither of which is the domestic currency.
- Calculated using exchange rates of both currencies against a common currency (usually USD).
- For example, to find EUR/JPY, if USD/JPY = 110 and USD/EUR = 1.2, then:

$$EUR/JPY=USD/JPYUSD/EUR=1101.2=91.67$$

$$EUR/JPY=$$

$$USD/EUR$$

$$USD/JPY$$

$$=$$

$$1.2$$

$$110$$

$$=91.67$$

This means 1 EUR equals 91.67 JPY.

Percentage Spread (Bid-Ask Spread Percentage)

- In the foreign exchange market, rates are quoted with a bid (buying) rate and an ask (selling) rate.
- The spread is the difference between bid and ask price and represents the dealer's profit.
- Percentage spread is calculated as:

$$\text{Spread \%}=\text{Ask Rate}-\text{Bid Rate}\text{Ask Rate}\times 100$$

$$\text{Spread \%}=$$

$$\text{Ask Rate}$$

$$\text{Ask Rate}-\text{Bid Rate}$$

$$\times 100$$

- For example, if the bid rate is ₹73.90 and the ask rate is ₹74.10 for USD/INR,

$$\text{Spread \%}=74.10-73.9074.10\times 100=0.27\%$$

$$\text{Spread \%}=$$

$$74.10$$

$$74.10-73.90$$

$$\times 100=0.27\%$$

This shows the cost of converting currencies due to the bid-ask difference.

Summary Table

Quotation Type	Meaning	Example (USD/INR)	Formula/Notes
Direct Quote	Domestic currency per 1 unit foreign currency	₹74/USD	Direct Quote = Price of 1 USD in INR
Indirect Quote	Foreign currency per 1 unit domestic currency	0.0135 USD/₹1	Indirect Quote = 1 / Direct Quote
Cross Rate	Exchange rate between two foreign currencies	EUR/JPY = 91.67	Cross Rate = RateA / RateB (both vs common currency)
Percentage Spread	Dealer's profit margin between bid and ask rates	0.27%	((Ask - Bid) / Ask) * 100